# 1 What Is Critical Thinking?

Thinking is the foundation of everything we do. Every action, every solution, and every decision we make is the result of thinking. We think when we decide what to eat for lunch, how to meet a project schedule, and what to say during a conversation. We think when we drive a car (although, unfortunately, we're not always thinking about driving). We're thinking all the time, and although not always filled with valuable thinking, our brains are always in gear. Even when sleeping, we're thinking.

Critical thinking is thinking but in a different way. Many people describe this process using terms such as *analytical, thoughtful, questioning, probing, nonemotional, organized, innovative, Socratic, logical, methodical, not taking things for granted, examining, details, exhaustive, outside the box, scientific*, and *procedural*. Odds are that you've heard and probably used a few of these terms. But what exactly do they mean?

Some paraphrase critical thinking as "thinking smarter." I paraphrase it as "headscratching." Most would agree critical thinking is not our everyday, automatic, not-really-thinking-about-it thinking.

*Critical thinking* is:

- manual thinking (not automatic);
- purposeful;
- being aware of the partiality of your thinking;

- a process; and
- thinking that uses a tool set.

Here are the details of each of these:

*Critical thinking is manual rather than automatic thinking*. Let's first take a look at automatic thinking, the kind of thinking we do the most. Have you ever driven your car to work but didn't remember the drive when you got there? How about intending to stop at the grocery store on the way home from work—then realizing as you approached your home that you completely forgot about that errand? What about a time when you put your keys down and had no idea where they went a few minutes later? This is what happens when you're in automatic thinking mode. It is still thinking, but you're not necessarily *aware* of what you are thinking.

Try reading this text:

> You mghit tnihk i'ts aaminzg taht you can raed tihs with vrlialuty
> no diluftficuy even tuohg the ltetres are mxeid up. It trnus out taht
> all you need are the fsrit and lsat leetrts in the crocert pcale.
> Tihs is an eaxplme of yuor brin rnuning in aoumtatic mdoe.

How can you read that? When I ask that question, the answer I inevitably get these days is "Because I can read my kid's text messages." Well, that's partially true; but really, how are you able to read that? If English is your native language, you probably even read this as quickly as you would have if the letters were not scrambled.

Your brain does several activities to enable you to read this mixed-up text, one of which is pattern recognition. Your brain is a very powerful pattern recognition machine. You've probably had the experience of talking with someone and being able to predict how they are going to react—because it's a pattern. We recognize many things, such as places, people, noises, and smells. As you start reading the paragraph, your brain automatically starts to unscramble the words—until you get to the word *tuohg*. It's spelled wrong. It is missing a letter and doesn't follow the rule. Your brain recognizes this,

so it mentally searches every word you know that looks like *tuohg* and might belong in the sentence. This is called context recognition and refers to what belongs here—what fits based on the sentence's meaning. Our brains are incredibly adept at this. As a result, our pattern recognition, aided by context recognition, enables us to read the preceding passage. However, what if I had asked you to pick the misspelled word? Did you even catch that while you were reading? Most people have a difficult time picking out *tuohg*.

Try this next activity: count the number of Fs in the following paragraph, in 15 seconds or less.

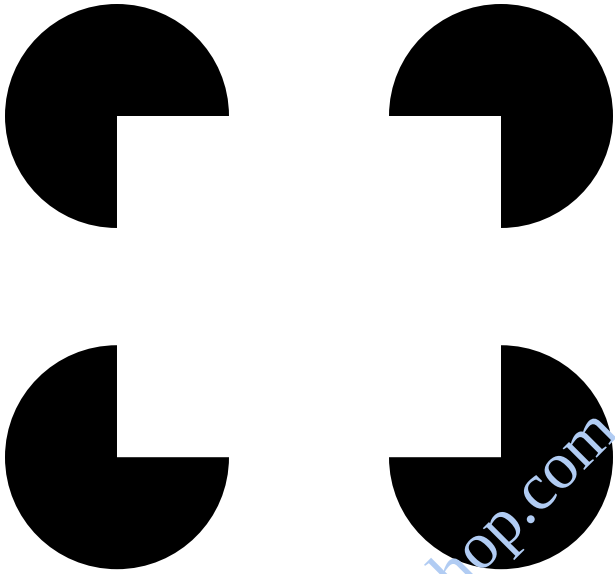
FINISHED FILES ARE THE RE
SULT OF YEARS OF SCIENTI
FIC STUDY COMBINED WITH
THE EXPERIENCE OF YEARS.

How many Fs did you count? Three? Four? Five? We show this in every workshop we conduct, and usually about two-thirds of the class count three, with the remaining counting four, or five, and only a few counting six. There are six Fs in that paragraph, and if you didn't see them all, you missed one or more instances of *OF*.



The Fs test is an example of how your brain discards information when it's operating in automatic mode. Our minds discard things such as this all the time. You throw out some of what your manager tells you; if you are a manager, you throw out some of what your reports tell you. You disregard things your significant other says to you (and get lectured about it later). Why do we throw stuff out? Our brains are bombarded with a tremendous amount of information. When your eyes are open, billions of information bits per second are entering your brain. Your ears are always open, but you block out noise. In an attempt to simplify things for you, your brain throws things out that it doesn't deem important or thinks it already knows. The trouble is that your brain doesn't tell you it is throwing things out; it just does it. Thank you, automatic mode!

Try one more activity: What predominant shape do you see in the diagram that follows?





The square, right? Of course—but it's not really there. Those three-quarter circles define the boundary, but the square isn't there if you move them away. This is an example of how you make stuff up when you operate in automatic mode; that is, you infer things that are not always true.

Your brain's automatic mode is extremely helpful in guiding your thinking. However, unbeknownst to you, it also discards, distorts, and creates information. Although this tendency can be extremely helpful in many situations—such as your drive to work—it can also be a drawback. When you have to think about something important, you want to get out of automatic mode and go into manual—that is, critical thinking.

*Critical thinking is purposeful*. You make a conscious effort to leave automatic mode as you start to consider a certain situation. You begin to think a little bit differently using some of the techniques of critical thinking. You are very aware about what you are thinking and are thinking purposefully. For example, when you are learning something for the very first time, you are very attentive; you listen carefully to determine whether you understand; you're aware that your goal is to learn something.

*Critical thinking means that you're aware of the partiality of your thinking*. Most of the people we ask assume critical thinking is nonemotional

thinking. That would be great if humans could actually achieve it. But if you are reading this book, you are undoubtedly a human being—and humans have emotions, biases, and prejudices that stem from our values. Although it is possible to be aware of these, it is impossible to ignore them. Your values are a part of you, and as you will read later, play an important role in how you come to conclusions. You cannot be completely impartial, but you can be *aware* of the components of your partiality and how they influence you.

*Critical thinking is a process*. This process requires that you understand a situation, come to a conclusion about what to do, and take action on that conclusion. We have many processes in business—the steps we follow to get us from A to B. For example, a customer who has a problem may call customer care. A typical process there might include understanding why the customer is calling, assessing the situation, asking a series of questions, perhaps looking information up in a database, and coming to conclusions about what the issue is, what you can do about it, or whether you have to escalate it.

*Critical thinking is conducted within a framework and tool set*. The framework consists of a three-step process. The tool set consists of the individual critical thinking techniques used in each step to guide your manual thinking.



## Benefits of Critical Thinking

Critical thinking can significantly enhance your problem-solving and decision-making skills. You make better-quality decisions, come up with more innovative solutions, and enjoy faster outcomes. Some benefits of critical thinking include:

- clear understanding of problems or situations
- faster and accurate conclusions and quality decisions
- a richer variety of explanations and solutions
- opportunity recognition
- mistake avoidance
- thought-out strategies and early elimination of dead ends

Critical thinking achieves these benefits by affecting three main aspects of your thought process, explained next.

### Critical Thinking Enables You to Look at Issues Differently

We often look at the problems we have to solve from a certain perspective. This means that you get a set of solutions that are consistent with the way you interpret the problem. However, when you use critical thinking tools to review problems differently, you get new perspectives and ideas.

For example, suppose your shoelace broke on your tennis shoe. If your goal was simply to fix it quickly, you might just tie the dislodged piece with a knot to the rest of the lace and jury-rig the tennis shoe tight. But if you wanted to fix it so it would last, you might replace the shoelace with another. If you decide the shoes are old and uncomfortable, you might buy another pair.

In business, you might receive customer calls about lowering the fee for service. From the perspective of keeping the customers at all costs, you might give them a discount. If your goal above all else is to provide a fair price for the value, you might have a conversation with them about the value of your service and not give them a discount, with the understanding they might not renew.

Suppose there was a spike in the workload of your department. If you thought the workload change was only temporary, you might ask your folks to work overtime or perhaps hire a short-term contractor. But if you thought the workload increase was permanent, you might start interviewing for a new full-time hire.

As you can see, different perspectives result in different solutions.



### Critical Thinking Prevents a Distorted Picture

You saw in the examples at the beginning of the chapter how your brain hides information, imagines, and throws things out when operating in automatic mode. Interpretations of statements and situations vary greatly as your automatic brain attempts to compare them to a prior known situation. For example, you might misinterpret a request from a customer because you automatically think it is the same as others you recently fulfilled. Issues you think are clear are not always actually clear. Critical thinking, and being conscious about what you are thinking, minimizes this distortion and allows you to examine a situation anew.

How often are you asked for something that you respond to automatically using solely your prior experience? Without looking more clearly, you might not recognize the situation at hand is actually a bit different from

prior situations—and this time, the answer can be different as well. For example, if you had a job in accounts payable, you would be accustomed to many calls from your suppliers asking for expedited payment of their invoices. When you receive your next request for faster payment, you might automatically say, "I'm sorry, we cannot. Our company policy is to pay in 45 days." However, perhaps your supplier actually sent in the invoice more than four months prior, and it was misplaced within your company. Knowing this, you would have responded, "I'm sorry, we'll expedite payment of the invoice, and you'll have payment in five days."

### Critical Thinking Gives You a Framework to Think In

A framework to think in provides two huge benefits: it helps organize and guide your thinking while leveraging and incorporating others' input as well.

- *Organizing your thoughts:* Many of us think in a somewhat haphazard manner, causing us to rethink the same issue and to forget what we have already figured out, assumed, or even decided. Critical thinking helps sort it all out.
- *Incorporating others' thinking:* An important part of the critical thinking process is listening to others explain *their* thinking—which allows two things to occur. First, you might realize that others have ideas to help solve your problem. After all, you don't have exclusivity on all the good ideas. Second, listening to others' thinking stimulates new thinking in you. As a result, you may come up with ideas you would have never thought about had you not had that interaction.



**The Takeaway**

Critical thinking is a purposeful method for *enhancing your thoughts beyond your automatic, everyday way of thinking. It's a process that uses a framework and tool set*. The benefits result from changing the way you look at issues, organizing your thoughts, and incorporating others' thoughts. It stimulates new perspectives and prevents distorted views of a situation. As a result, your problem-solving and decision-making skills are enhanced.